



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,087	05/29/2002	Stefan Disch	1999/G-017	9098

7590 06/14/2007  
Conolly & Hutz  
P O Box 2207  
Wilmington, DE 19899

EXAMINER
----------

NUTTER, NATHAN M

ART UNIT	PAPER NUMBER
----------	--------------

1711

MAIL DATE	DELIVERY MODE
-----------	---------------

06/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**UNITED STATES DEPARTMENT OF COMMERCE****U.S. Patent and Trademark Office**

Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10069087	5/29/02	DISCH ET AL.	1999/G-017

**EXAMINER**

Nathan M.. Nutter

ART UNIT	PAPER
----------	-------

1711

20070530

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

Nathan M. Nutter  
Primary Examiner  
Art Unit: 1711



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/069,087  
Filing Date: May 29, 2002  
Appellant(s): DISCH ET AL.

---

Ashley I. Pezzner  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 13 February 2007 appealing from the Office action mailed 17 July 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is substantially correct. However, the limitation in each of claims 1, 12, 15, 19, 23 and 24 regarding the recitation, "in accordance with the German Automotive Industry Recommendation No, 275 (VDA 275)" is shown at the paragraph bridging page 5 to page 6, page 7 (lines 2-6) and Table 1 at page 10.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

3,956,982	Chapman et al	3-1972
4,666,995	Auerbach et al	5-1987
4,727,106	Paul et al	2-1988
5,994,455	Muck et al	11-1999

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 11, 12, 14-19 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auerbach et al (US 4,666,995) taken with Paul et al (US 4,727,106) in view of Chapman et al (US 3,656,982), all in view of Mück et al (US 5,994,455).

The references to Auerbach et al (US 4,666,995), Paul et al (US 4,727,106), Chapman et al (US 3,656,982) and Mück et al (US 5,994,455) teach the manufacture of compositions comprising polyacetal copolymers having oxymethylene and oxyethylene units.

Art Unit: 1711

The reference to Auerbach et al (US 4,666,995) teaches the production of the oxymethylene copolymer using a strong protonic acid initiator at column 3 (lines 33-39). The reference shows the employment of pigments at the paragraph bridging column 8 to column 9, which also shows the use of stabilizers and other additives. The ratio of oxymethylene to oxyethylene groups is taught at column 4 (lines 9-13) to be "from about 6 to 1 to about 1000 to 1," which is clearly within the range recited in claims 11 and 22. The recitation of claim 2 of "white pigments, black pigments, and color pigments" is met by the reference.

The reference to Paul et al (US 4,727,106) also shows the use of strong protonic acid initiators at column 4 (lines 23-29). Paul et al teaches the use of pigments, including black and white, and other additives, including stabilizers, at column 11 (lines 3-21) "in amounts of up to about 5% by weight," as recited in instant claims 2, 15 and 16. The reference shows the reduced formaldehyde emissions at Table 1, columns 11 and 12.

The reference to Chapman et al (US 3,656,982) shows the conventionality of the employment of a colorant that has a "coating of an alkali metal salt of a fatty acid having at least 12 carbon atoms" as recited in claims 3 and 17 in polyoxymethylene copolymer compositions, as recited and claimed herein. Note column 2 (lines 18-35) and the many Examples.

The patent to Mück et al (US 5,994,455) is relied upon solely to show the use of the trifluoromethanesulfonic acid initiator, as recited in claim 15. Note column 1 (lines 21-39) and Example 1 at the paragraph bridging column 3 to column 4.

All of the references are drawn to polyoxymethylene copolymers. The references to Auerbach et al (US 4,666,995), Paul et al (US 4,727,106) and Mück et al (US 5,994,455) all show the use of a protonic acid as the initiator, with Mück et al showing the specific initiator of claim 15. Employment of this initiator in the production of the oxymethylene copolymers of either Auerbach et al or Paul et al would be prima facie obvious since all disclose the class of initiators, as claimed. The particular employment of the pigments and other additives, including the stabilizer, in amounts as herein claimed is shown by the teachings of Paul et al. The skilled artisan, likewise, would know the suitable amounts of each to use for desired effect. The employment of the particular colorant as recited in claims 3 and 17 in a polyoxymethylene composition is shown to be conventional by Chapman et al (US 3,656,982). Since the copolymers are produced in the same manner as disclosed herein, and may employ the same protonic acid initiators, the emission of formaldehyde would be inherent. All parameters of the claims are deemed to be shown by the references to be conventional. As such, the instant claims would have been obvious, in the sense of 35 USC 103(a) in view of the teachings of the references.

#### **(10) Response to Argument**

Appellant's arguments in the Appeal Brief filed 13 February 2007 have been fully considered.

With regard to the rejection of claims 1-3, 11, 12 and 14-19 and 21-26 under 35 U.S.C. 103(a) as being unpatentable over Auerbach et al (US 4,666,995) taken with

Art Unit: 1711

Paul et al (US 4,727,106) in view of Chapman et al (US 3,656,982), all in view of Mück et al (US 5,994,455) the following arguments are presented.

With regard to claims 1, 2, 11, 12 and 14, appellants assert that the characteristic of reduced formaldehyde emissions as the thrust of the invention, and that the references, in their failure to recognize this characteristic, cannot negate the patentability of the instant claims. This is further predicated by appellants' reference to the constituents disclosed by the references. While appellants argue the prior art references did not "recognize or solve the problem (of formaldehyde emissions)," a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Patentees" do not need to recognize a problem to actually solve the same problem.

Concerning the reference to Auerbach et al, it is appellants' contention that the mere recitation of possible constituents provides "no motivation to particularly select any of the optional ingredients (colorant)." Appellants list the optional components disclosed by Auerbach et al in the paragraph bridging column 8 to column 9, e.g., plasticizers, other formaldehyde scavengers, ....colorants. The motivation to use any of these particular components is stated in the art-recognized uses, e.g. colorant. The choice thereof is a design choice, as to particular color and to amount employed depending on desired characteristics, such as opacity. No other motivation need be provided. The disclosure that these constituents are optional would present itself to a skilled artisan as

Art Unit: 1711

motivation enough to select some, many, any or all of those optional components, and the recitations of the instant claims do not exclude such.

The same is true concerning the disclosure of Paul et al. Appellants argue the reference "gives no motivation to particularly select any of the optional ingredients. Although only ten broad generic categories of additives are listed in the reference, Appellants list 35 optional components, but list broad categories followed by specific members of the group as separate choices. The disclosure of Paul et al that these constituents may be employed would present itself to a skilled artisan as motivation enough to select some, many, any or all of the optional components, and the recitations of the instant claims do not exclude such.

With regard to the colorant of Chapman et al, the reference teaches the known uses of nacreous pigment, as is recited in claims 3 and 17. The pigment is used and disclosed for its art-recognized function, e.g. as a pigment. Regardless of the medium to which the colorant, pigment, may be entrained or mixed, it retains the feature that characterizes its use, that is, as a pigment.

Appellants speculate "that the addition of a colorant usually leads to an increased destruction or the polyoxymethylene and following to an increased emission of formaldehyde," without providing any conclusive evidence thereto. The skilled artisan, following the teachings of the references would have a high level of expectation of success at arriving at the instantly claimed invention.

With regard to appellants' assertions concerning Mück et al at page 11 of the Appeal Brief that "(t)here is no evidence in Mück et al that copolymers containing

Art Unit: 1711

oxymethylene and oxyethylene units and a colorant (pigment) leads to an increased formaldehyde emission and that this emission can be reduced by mixing specific prepared copolymers (with a strong protonic acid) with the colorant (pigment)," it is clear that appellants require the reference to meet the requirements of 35 U.S.C. 102, when, in fact, the reference was relied upon solely to show the use of the trifluoromethanesulfonic acid initiator, as recited in claim 15.

The reasons and motivation to combine the references are discussed in the rejection above. Again, appellants attempt to assert patentability of the claims with reference to the characteristic of low formaldehyde emissions. This characteristic is recited as an inherency to the composition, as recited, yet appellants have failed to show any manipulation of either composition or constitutional limitations that are without the purview of the references cited that would provide the desired characteristic, and none have been recited and claimed.

In response to appellants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With regard to the arguments concerning claim 3, on page 13, and claim 17, on page 15, the reference to Chapman et al is relied upon for the teaching of the use of an art-recognized colorant, identical to that recited in claims 3 and 17. A skilled artisan would have motivation to choose the colorant for its art-recognized use.

With regard to appellants' arguments concerning claims 15, 16, 18, 19 and 21-23, appellants have ignored the teachings of the other references and the reasoning for using the reference to Mück et al, and has again attempted to require the reference to meet the claims as though applied under 35 USC 102, and not for the reasons applied. Considering the references, as a whole, the motivation to use art-recognized constituents in art-recognized capacities is shown. Again, a skilled artisan would have a high expectation of success following the teachings of the references, as set out.

Regarding claim 24, a skilled artisan would have a high level of expectation to achieve the formaldehyde emission levels recited in the claims, including claim 24, following the teachings of the references.

With regard to appellants' arguments concerning claims 25 and 26, appellants erroneously state "this group of claims requires the specific colorant selected from the group consisting of white pigments, black pigments, and color pigments. As stated above, the Examiner has relied upon Chapman for this teaching but Chapman is not believed to be combinable because it is directed to a non-analogous art." The Examiner relies upon Chapman et al only as applied to claims 3 and 17. The references to Auerbach et al and Paul et al show the use of colorants.

Art Unit: 1711

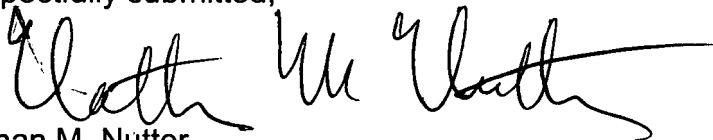
Again, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Nathan M. Nutter  
Primary Examiner  
Art Unit 1711

Conferees:

Jennifer K. Michener

James Seidleck

  
**JENNIFER MICHENER**  
**QUALITY ASSURANCE SPECIALIST**